

IN THE SPECIFICATION:

Please replace the heading beginning at page 9, line 4, with the following heading:

a2 --BRIEF DESCRIPTION OF THE DRAWINGS--

Please replace the paragraph beginning at page 9, line 11, with the following rewritten paragraph:

b3 --Figs. 3A-3E show a drive principle of the supersonic motor according to the present invention;--

Please replace the paragraph beginning at page 9, line 22, with the following rewritten paragraph:

a4 --Figs. 7A-7E show a second example of a linear motion mechanism using a supersonic motor according to the present invention;--

Please replace the paragraph beginning at page 9, line 24, with the following rewritten paragraph:

a5 --Figs. 8A-8E show a modification example 1 of the second example of the linear motion mechanism using the supersonic motor according to the present invention;--

a5
cont

[Please replace the paragraph beginning at page 10, line 2,
with the following rewritten paragraph:

--Figs. 9A-9B show a modification example 2 of the second example of the linear motion mechanism using the supersonic motor according to the present invention;--

Please replace the paragraph beginning at page 11, line 15,
with the following rewritten paragraph:

ab

--Figs. 1-2 show a structure of a supersonic motor 1 to which the present invention may be applied, and Figs. 3A-3E show an operational principle of the supersonic motor 1. The operational theory of the supersonic motor according to the present invention will first be described. In Fig. 2, a disc-like vibrating body 3 is supported to a center shaft 6 fixed at its center to a support plate 5. A piezoelectric element 2 is bonded to a first surface of the vibrating body 3, and projections 3a for enlarging a vibratory shift of the vibrating body 3 and imparting a rotational force to a rotor 4 are provided on a second surface. A bearing 7 is provided at the center of the rotor 4 and the center thereof is guided by the center shaft 6. A pivot 8 provided on a central portion of the rotor and having a tip end curved is pressurized by a spring member 9 having one end fixed to a spring seat 10 to thereby impart a contact pressure between the projections 3a

Q6 of the vibrating body 3 and the rotor 4. A vibrating wave excited to the vibrating body 3 is converted into the rotational force of the rotor 4 through the frictional force by the piezoelectric effect of the piezoelectric element 2.--

Please replace the paragraph beginning at page 21, line 25, with the following rewritten paragraph:

Q7 --A third embodiment of the present invention will now be described. Fig. 10 is a top plan view of a pivotal or swing motion mechanism using a supersonic motor 1 and its application.--

Please replace the paragraph beginning at page 22, line 2, with the following rewritten paragraph:

Q8 --The moving body 37 is supported rotatably in a direction indicated by the arrow 39 about a point 40a. There is no limit as to how the moving body may be supported. A bearing and a center shaft having the center located at the point 40a can be used on the bottom surface of the moving body 37, for example.--

Please replace the paragraph beginning at page ²²2, line 20, with the following rewritten paragraph:

Q9 --For instance, if a filter 38 made of dielectric multi-layered film is provided on a top surface of the moving

Q9
Cont

body 37, and an optical fiber 39a is provided at a confronting position with the filter 38, the transmission center wavelength of a ray of light introduced from the optical fiber 39a and passing through the filter 38 changes in accordance with an angle of the filter 38 and is introduced into the optical fiber 39b. Accordingly, it is possible to realize an optical filter that is thus superior in variable resolving power.--

Please replace the paragraph beginning at page 23, line 17, with the following rewritten paragraph:

Q10

--A rotary body 45 has a slant portion that has at least one different thickness in the circumferential direction of the rotor 4 and is fixed so as to be rotated together with the rotor 4. A linearly moving body portion 46 having a projecting portion at least a part of which is in contact with the slant portion of the rotary body 45 is guided by guide members 47a and 47b in accordance with the rotational motion of the rotor so that the linearly moving body portion 46 is moved linearly in the thickness direction of the rotor. The linearly moving body portion 46 has, at a part thereof, a moving body 44 that is to be driven. Here, the pressurizing spring 15 that is a second pressurizing mechanism is provided so that the linearly moving body portion 46 of the moving body

Q10
Cont

44 is pressed and contacted at a suitable pressure to the rotary body portion 45 so that the minute rattle amount may be compensated for to thereby realize a linear motion mechanism with a supersonic motor with high precision. Incidentally, since the pressurizing pressure in the pressurizing spring 15 that is the second pressurizing mechanism is set to be smaller than the pressurizing force of a pressurizing spring that is the first pressurizing mechanism a so that the drive force of the supersonic motor is not affected by an adverse effect due to an external turbulence such as a load of a moving member 100, body 44, it is possible to realize a linear motion mechanism with a supersonic motor that is stable even in small size and thin shape to obtain the drive force.--

Please replace the paragraph beginning at page 24, line 15, with the following rewritten paragraph:

Q11

--Fig. 13 is a block diagram showing a modification example 1 of the third example of the linear motion mechanism using the supersonic motor. The basic structure thereof is not different from that shown in Fig. 11. However, it is noted that the amount of movement of the moving member 100, corresponding to the moving body 4 in Fig. 11, is detected by means of a moving body detecting means 105 and a signal

all
Cont

thereof is fed to the control circuit 101 and the position is drivingly compensated for with the supersonic motor drive circuit 104.--

Please replace the paragraph beginning at page 24, line 26, with the following rewritten paragraph:

W2

--Fig. 14 is a diagram showing a modification example 2 of the third example of the linear motion mechanism using the supersonic motor. The basic structure thereof is not different from that shown in Fig. 11. However, a connector 51 in which a fiber 49 and a lens 50 are arranged centrally is provided on the fixing and supporting member 42 and in the same manner a connector 54 in which a fiber 52 and a lens 53 is arranged centrally is provided on the moving body 44 and the moving body 44 is linearly moved by the rotation of the supersonic motor so that an optical intensity is variable when the intensity of light emitted from the fiber 49 is received in the fiber 52. With such an arrangement, for instance, it is possible to realize an attenuator that is an optical information communication module which is free from the effect of magnetic noise and strong against an external turbulence such as vibrations, and which is small in size and has low power consumption.--

Please replace the paragraph beginning at page 25, line 15,
with the following rewritten paragraph:

213
--Fig. 15 is a diagram showing a modification
example 3 of the third example of the linear motion mechanism
using the supersonic motor. The basic structure thereof is
not different from that shown in Fig. 11. However, a lens 55
is mounted on the fixing and supporting member 42 and in the
same manner a lens 56 is mounted on the movable body 44. The
moving body 44 is moved linearly by the rotation of the
supersonic motor to thereby change an optical distance. With
such an arrangement, for example, it is possible to realize a
focus setting mechanism, an auto-focus mechanism, an iris
mechanism for a camera, a video camera, an optical pickup or
the like that are free from the adverse affect of magnetic
noise and are strong against an external turbulence such as
vibrations, and which is small in size and has low power
consumption.--

IN THE CLAIMS:

Cancel claims 1-28 without prejudice or admission.

Kindly add the following new claims 29-50:

29. A linear motion mechanism comprising:
a supersonic motor having a shaft, a vibrating body
supported by the shaft, a piezoelectric element having an